

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Michael Croft, et al. Art Unit: 1644

Serial No.: 10/661,358 Examiner: Ouspenski, Ilia

Filed : 09/11/2003

Title : METHODS OF TREATING OX40 MEDIATED RECALL IMMUNE

RESPONSES

Assistant Commissioner for Patents Washington, DC 20231

DECLARATION UNDER 37 C.F.R. §1.132

Dear Sirs:

I, Dr. Linda Bradley, do hereby declare and state that:

- 1. I am a resident of San Diego, CA. My residence address is: 10525 Livewood Way. I received Bachelor of Science degree in BA from the University of California, Los Angeles in 1971. I received a Doctor of Philosophy degree in Immunology from the University of California, Berkeley in 1981. I am currently Professor of Immunology at Sidney Kimmel Cancer Center, in San Diego, CA. My curriculum vitae is attached, which reflects my expertise in the areas of Immunology including T cell memory and the ability of T cells to respond to recall antigens and undergo secondary or recall immune responses. I am familiar with the mouse model used in the studies referred to in the Declarations under 37 C.F.R. §1.131 executed by Dr.s Michael Croft and Shahram Salek-Ardakani, and the accompanying data (Exhibit A) filed March 23, 2006 (collectively referred to hereinafter as the "131 Declaration").
- 2. I am also familiar with the data obtained in the studies referred to in the 131 Declaration.

- 3. I submit this declaration to affirm that: The mouse model in the studies referred to in the 131 Declaration, in which mice were immunized with a foreign antigen (OVA) and subsequently challenged several weeks later with the same antigen to produce a recall lung inflammatory immune response, was recognized in the art at the time the studies were performed to represent recall immune responses in general, inflammation caused by recall immune responses in general, as well as recall immune responses causing symptoms, such as symptoms associated with a secondary or subsequent immune response including asthma.
- 4. As described in the 131 Declaration, mice sensitized with OVA followed by a subsequent challenge with OVA in a recall response to induce lung inflammation were known to represent recall immune responses and secondary or subsequent immune responses in general at the time the studies were performed. Levels of cytokines, such as IL-4, IFN, IL-5, and IgE were known to reflect whether, and to what extent, a recall immune response was induced. IL-4 and/or IgE levels were known to typically increase in a recall immune response, or secondary or subsequent immune response, in the lung as well as in other tissues and organs such as the spleen and lymph nodes. Neutrophils, eosinophils, monocytes and lymphocytes were also known to reflect whether, and to what extent, a recall immune response was induced. Eosinophils and lymphocytes were known to typically increase in a recall immune response, or secondary or subsequent immune response, in the lung as well as in other tissues and organs.
- The studies referred to in the 131 Declaration show that anti-OX40L antibody reduces IL-4 and IgE levels, as well as numbers of eosinophils and lymphocytes in lung. I therefore conclude that the studies described in the 131 Declaration would be representative of recall immune responses in general, inflammation caused by a recall immune response in general, as well as recall immune responses causing symptoms, such as symptoms associated with a secondary or subsequent immune response including asthma.

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In sum, I conclude that the studies referred to in the 131 Declaration would have been recognized in the art at the time the studies were performed to represent recall immune responses in general, inflammation caused by recall immune responses in general, as well as

recall immune responses causing symptoms, such as symptoms associated with a secondary

or subsequent immune response including asthma.

7. I also submit this declaration to affirm that: The mouse model in the studies referred to in the

131 Declaration was an art recognized model of recall immune responses in mammals in

general including humans at the time the studies were performed. Data obtained in the

mouse model indicating a reduction or inhibition of a recall immune response, or a reduction

or inhibition of one or more symptoms of a secondary or subsequent immune response,

would therefore have been known as reasonably correlative to mammals including humans.

8. I declare that all statements made herein of my own knowledge are true and that all

statements made on information and belief are believed to be true, and further that these

statements were made with the knowledge that willful false statements and the like so made

are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States

Code, and that such willful false statements may jeopardize the validity of the application or

any patent issuing thereon.

Date:

6.

9.29.06

Bradley, Ph.D.

CURRICULUM VITAE

Linda M. Bradley, Ph. D.

Professor, Department of Immunology Sidney Kimmel Cancer Center 10905 Road to the Cure San Diego, CA 92121 Tel: 858 410 4213 FAX:858 623 2740

Email: lbradley@skcc.org

Education:

1971	B.A., Bacteriology, University of California, Los Angeles
1981	Ph.D., Immunology, University of California, Berkeley
1981-1984	Postdoctoral Fellow, Immunology, Oregon Regional Primate Research Center,
	Beaverton, OR.
1988-1991	Postdoctoral Fellow, Immunology, University of California, San Diego, La Jolla,
	CA.

Research and Professional Experience:

1971-1972	Research Associate, University of California, Los Angeles, Los Angeles, CA.
1972-1973	Research Associate, University of Hawaii, Honolulu, Hawaii.
1975-1976	Teaching Assistant, University of California, Berkeley, Berkeley, CA.
1985-1987	Research Scientist, Emanuel Hospital, Portland, OR.
1990	Organizer, 17th Annual Conference of the La Jolla Immunologists, Lake Arrowhead, CA.
1991-1996	Assistant Research Professor, Dept. Biology, University of California, San Diego, La Jolla, CA.
1993-1996	Lecturer, Advanced Immunology, University of California, San Diego, La Jolla, CA.
1995-1997	Lecturer, Basic Immunology, University of California, San Diego, La Jolla, CA.
1996-2002	Assistant Professor, Dept. Immunology, The Scripps Research Institute, La Jolla,
	CA.
1999	NIH review panel: Centers of Excellence for Human Immunology.
1999	National Science Foundation Grant Reviewer.
2002-2005	Associate Professor, Sidney Kimmel Cancer Center, San Diego, CA.
2002	NIH special emphasis panels: Biodefense and Emerging Infectious Disease.
	Research Opportunities; Innate Immunity in Vertebrates and Insects.
2002-2003	NIH ALY Study Section, ad hoc Reviewer.
2003-2006	Welcome Trust, UK grant reviewer.
2003-2004	NIH IMS/HAI study section, ad hoc reviewer.
2003-2006	Program Committee, American Association of Immunologists.
2004	NCI review panel: Regulation of Anti-Tumor Immunity.
2004	Medical Research Council, UK, program reviewer.
2004-present	Faculty of 1000, Immune Response Section.
2004	Diabetes Endocrinology Research Center, Seattle, WA., grant reviewer.
2005	NIH special emphasis panel: Biodefense and Emerging Infectious Disease
	Research Opportunities: Innate and Adaptive Response to Influenza.

Journal Manuscript Reviewer:

Blood

Cellular Immunology
Immunity
International Immunology
Journal of Clinical Investigation
Journal of Experimental Medicine
Journal of Immunology

Honors:

1970	National Science Foundation Fellowship for Undergraduate Research in Science
1971	B.A., Magna Cum Laude, University of California, Los Angeles, Los Angeles, CA
1974-1978	NIH Public Health Service Predoctoral Fellowship
1981-1982	Medical Research Foundation of Oregon Grant for Biomedical Research
1983-1985	Medical Research Foundation of Oregon Grant for Biomedical Research
1992	NIH First Award
1992	Arthritis Investigator Award (received the Alpha Omicron Pi Award)

Memberships:

1991-present American Association of Immunologists

1992-1996 UCSD Cancer Center

Grant Support:

Completed:

Arthritis Foundation, Arthritis Investigator Award: Helper T cell Memory, Principal Investigator: Linda M. Bradley 06/01/92-05/31/95,

NIH/NIAID P01 AI33204: Modulation of Peripheral T Cell Activity,

Program Director: Maurizio Zanetti,

Project 5: Strategies for Inducing Helper T cell Memory.

Principal Investigator: Linda M. Bradley

8/01/92-7/31/96

NIH/NIAID R01 AI32978: Regulation of Helper T Cell Memory

Principal Investigator: Linda M. Bradley

08/01/92-12/31/03

NIH/NIAID P01 AI37935: Generation and Regulation of T and B Cell Memory

Program Director: Susan L. Swain

Project 3, Recirculation of Memory T Cells Principal Investigator: Linda M. Bradley

06/01/95-11/30/99

NIH/NIAID R03 AI45812: Regulation of Diabetes By Chemokines

Principal Investigator: Linda M. Bradley

08/01/99-07/31/02

Current:

NIH/NIDDK 1R01 DK59438-01: Control of Autoimmune Diabetes by Regulatory T cells.

Principal Investigator: Linda M. Bradley

06/01//01-05/31/07.

NIH/NIAID 2P01 AI46530: T Cell Memory Generation and Function

Program Director: Susan L. Swain

Project 3: Regulation of Memory T Cell Migration

Principal Investigator: Linda M. Bradley

09/30/99-03/31/08

NIH/NIAID 1R01 AI061615: Regulation of T Cell Immunity to Influenza by CD44

Principal Investigator: Linda M. Bradley

07/01/04-6/30/09

JDRF Regular Research Grant: Adaptive Regulatory T cells as Immunotherapeutic Agents for

Type I Diabetes

Principal Investigator: Linda M. Bradley

05/01/06-04/30/09

Pending:

NIH/NIDDK 1R01 AI070987: Homeostasis and Memory in Adaptive Regulatory T cells

Principal Investigatory: Linda M. Bradley

NIH/NIAID U01: Novel TLR7 activating adjuvants for influenza-specific memory T cell

Infection. Not yet assigned.

Program Director: Dennis A. Carson.

Project 3: Regulation of T cell memory development and function

Principal Investigator: Linda M. Bradley

NIH/NIAID R21: Regulation of influenza virus infection by toll-like receptor 7engagement.

Not yet assigned.

Principal Investigator: Linda M. Bradley

Seminars/Symposia (invited speaker):

1992	Development of Antigen-Specific Peripheral Helper T cell Subsets In Vivo, International Conference on Cytokines, Florence, Italy.
1993	Development and Function of CD4 Memory T Cell Subsets, International
1004	Workshop on Immunologic Memory, NIH, Bethesda, MD. Development of Memory CD4 T Cells, Genentech, South San Francisco, CA
1994	Development of Memory CD4 1 Cells, Genericell, South San Francisco, CA
1995	Development and Recirculation of Memory CD4 T Cells, Clinical Immunology and Arthritis Seminar, UCSD, La Jolla, CA.
1995	Homing and Recirculation of T Cell Subsets, Autumn Immunology Conference, Chicago, IL.
1996	Homing and Recirculation of T Cell Subsets, Plenary Session, Keystone Symposia on Lymphocyte Activation, Hilton Head, SC.
1996	Recirculation and Function of Memory CD4 T Cells, UCLA Immunology Forum, Los Angeles, CA.
1996	Migratory Pathways of CD4 T Cell Subsets, NCSU, Raleigh, NC.

1997	Homing and Migration of CD4 T Cell Subsets, The Scripps Research Institute, La Jolla, CA.
1997	The Role of Homing Receptors in the Trafficking and Recirculation of CD4 T Cells; The Trudeau Institute, Saranac Lake, NY.
1997	Homing and Migration of Naive and Memory CD4 T Cells, Cell Adhesion and
1998	Migration in Inflammation and Cancer, Amsterdam, The Netherlands. The Migration of Effector and Memory CD4 T Cells, Plenary Session, FASEB
1998	Summer Research Conference, Saxtons River, VT. Anatomical Localization and Recirculation of Memory T Cells, Co-Chair, T and
	B cell Memory Workshop, Saranac Lake, NY.
1998	The Migratory Behavior of Naive, Memory, and Effector CD4 T Cell Subsets, Chair, T Cell Effector Functions, The 24th Conference of the La Jolla
1998	Immunologists, La Jolla, CA. Regulation of Lymphocyte Migration into Tissue: Lessons from CD4 T Cell
	Subsets, NCSU, Raleigh, NC.
1999	Regulation of Memory CD4 T Cell Responses: Adhesion Receptors, Cytokines, and Chemokines; The Trudeau Institute, Saranac Lake, NY.
2000	The Th1/Th2 Paradigm. Plenary Session, American Academy of Allergy,
	Asthma, and Immunology 56th Annual Meeting, San Diego, CA.
2000	Regulation of Memory CD4 T Cell Development and Responses. Immunology
	Colloquium Seminar Series, University of Pennsylvania Biomedical Graduate Studies, Philadelphia, PA.
2000	T Cell Memory Development: Session Chair, AAI, Seattle, WA.
2000	Regulation of CD4 T Cell Memory, Sidney Kimmel Cancer Center, San Diego,
	CA.
2001	The Generation and Regulation of Immunity by CD4 Cells, La Jolla Institute for Allergy and Immunology, La Jolla, CA.
2001	Regulation of CD4 Memory T Cells, Immunology Seminar Series, UCSD,
2001	La Jolla, CA. CD4 T Cells in Immunity and Autoimmunity, La Jolla Institute for Molecular
2001	Medicine, La Jolla, CA
2002	CD4 Memory T Cells; Immunology Seminar Series, Case Western Reserve
	University, Cleveland, OH
2002	Interleukin 7: An Essential Survival Factor for Resting CD4 Memory T Cells;
	Gordon Research Conference; Immunochemistry and Immunobiology; East
2002	Andover, NH.
2002	Adhesion Receptors in the Control of CD4 T Cell Recruitment and Cytokine Polarization; The Trudeau Institute, Saranac Lake, NY.
2003	Development and Persistence of CD4 Memory T Cells, Department of
2003	Microbiology and Immunology, Northwestern University, Chicago, IL.
2004	Regulation of CD4 Memory T Cell Generation and Persistence, Center for
2001	Immunology, University of Minnesota, Minneapolis, MN.
2004	Control of Autoimmune Diabetes by Regulatory CD4 Cells. Torrey Pines
	Institute for Molecular Medicine, San Diego, CA.
2005	Regulation of CD4 T Cell Homeostasis; Plenary Session, FASEB, San Diego, CA
2005	Leukocyte Trafficking: Achieving Global Positioning; Chair, Plenary Session,
	FASEB, San Diego, CA.
2005	Adaptive Regulatory CD4 cells and Control of Type I Diabetes. William Dunn
	School of Pathology, University of Oxford, UK
2006	Regulation of Immunity and Autoimmunity in CD4 T cells. University of
2006	California, Irvine, Irvine, CA.
2006	Homeostasis and Immunity in CD4 T Cells. University of California, Irvine,
2006	Irvine, CA. Regulation of CD4 memory generations by CD44, Trudeau Institute, Saranac
2000	Lake, NY.

2006

Control of Adaptive Regulatory CD4 cells: Implications for Cancer Vaccines. University of California, San Diego.

Publications:

- 1. Decker, J., Clarke, J., MacPherson (**Bradley**), L., Weinstein, R., and Sercarz, E.E. 1973. Early appearance of antigen-binding cells to two different antigens during fetal lymphoid development. *Adv. Exp. Med. Biol.* 29:269-275.
- 2. Decker, J.M., Clarke, J., Bradley, L.M., Miller, A., and Sercarz, E.E. 1974. Presence of antigen-binding cells for five diverse antigens at the onset of lymphoid development: Lack of evidence for somatic diversification during ontogeny. *J. Immunol.* 113:1823-1833.
- 3. Mishell, R.I., **Bradley, L.M.**, Chen, Y.U., Grabstein, K.H., Mishell, B.B., Shiigi, J.M. and Shiigi, S.M. 1978. Inhibition of steroid-induced immune suppression of adjuvant-stimulated accessory cells. *J. Reticuloendothel. Soc.* 24:439-447.
- 4. Mishell, R.I., **Bradley, L.M.**, Chen, Y.U., Grabstein, K.H., and Shiigi, S.M. 1979. Glucocortico-steroid response modifying factors derived from accessory cells. *Ann. N.Y. Acad. Sci.* 332:433-445.
- 5. Mishell, R.I., **Bradley, L.M.**, Chen, Y.U., Grabstein, K.H. and Shiigi, S.M. 1980. Protection of helper T cell from glucocorticosteroids by mediators form adjuvant-activated monocytes. In: Microbiology, (D. Schlesinger, ed.), American Society of Microbiology, Washington, D.C., pp. 82-86.
- 6. **Bradley, L.M.** and Shiigi, S.M. 1980. Generation of humoral responses: Secondary immunization to nitrophenyl haptens. In: Selected Methods in Cellular Methodology, (B.B. Mishell and S.M., Shiigi, eds.), W.H. Freeman and Company, San Francisco, pp. 45-54.
- 7. **Bradley, L.M.** 1980. Functional separation by inactivation of proliferating cells: Hot thymidine pulse. In: Selected Methods in Cellular Immunology, (B.B. Mishell and S.M. Shiigi, eds.), W.H. Freeman and Company, San Francisco, pp. 235-238.
- 8. Bradley, L.M. and Mishell, R.I. 1981. Differential effects of glucocorticosteriods on the functions of helper and suppressor T lymphocytes. *Proc. Natl. Acad. Sci.* 78:3155-3159.
- 9. **Bradley, L.M.** and Mishell, R.I. 1982. Differential effect of glucocorticosteroids on the functions of helper T lymphocytes. *Eur. J. Immunol.* 12:91-94.
- 10. Bradley, L.M. and Mishell, R.I. 1982. Selective protection of murine thymic helper T cells from glucocorticosteroid inhibition by macrophage-derived mediators. *Cell. Immunol.* 73:115-127.
- 11. Malley, A., **Bradley, L.**, and Shiigi, S. 1983. Idiotype-anti-idiotype antibody regulation of timothy grass pollen IgE responses. *Immunobiol*. 163:258-264.
- 12. Malley, A., Bradley, L.M., and Shiigi, S. 1983. Regulation of timothy grass pollen IgE responses. In: Intercellular Communication in Leukocyte Function (J.W. Park and R.L. O'Brien, eds.), John Wiley and Sons, Ltd., Chichester, England, pp. 623-626.
- 13. Malley A., **Bradley, L.**, and Shiigi, S. 1984. Preparation and characterization of a monoclonal anti-T-helper factor antibody. *Immunol.* 51:765-772.

- 14. Bradley, L.M., Shiigi, S.M. and Malley, A. 1986. Anti-I-J alloantisera elicited by immunization of BIO.A (3R) (I-J)^k mice with bone marrow-derived macrophages from BIO.A (5R) (I-J)^b mice. *Immunol*. 57:443-449.
- 15. Malley, A., **Bradley, L.M.** and Shiigi, S.M. 1987. The role of macrophages in anti-idiotypic antibody and T suppressor factor induction of timothy grass pollen antigen B specific T suppressor cells. *J. Immunol.* 139:1046-1053.
- 16. Malley, A., Stewart, C.C., Stewart, S.J., Waldbeser, L., **Bradley, L.M.** and Shiigi, S.M. 1988. A flow cytometric analysis of murine bone marrow-derived macrophages. *J. Leukocyte Biol.* 43:557-565.
- 17. **Bradley, L.M.**, Bradley, J.S., Ching, D.L. and Shiigi, S.M. 1989. Predominance of T cells that express CD45R in the CD4⁺ helper/inducer lymphocyte subset in neonates. *J. Immunol. Immunopathol.* 51:426-435.
- 18. **Bradley, L.M.**, Duncan, D.D., Tonkonogy, S. and Swain, S.L. 1991. Characterization of antigen-specific CD4⁺ effector T cells in vivo: Immunization results in a transient population of MEL-14⁻, CD45RB⁻ helper cells that secretes IL-2, IL-3, IL-4 and IFN-γ. *J. Exp. Med.* 174:547-559.
- 19. Swain, S.L., **Bradley, L.M.**, Croft, M., Tonkonogy, S., Atkins, G., Weinberg, A.D., Duncan, D.D., Hedrick, S.M., Dutton, R.W. and Huston, G. 1991. Helper T cell subsets: Phenotype, function and the role of lymphokines in regulating their development. *Immunol. Rev.* 123:115-144.
- 20. Bradley, L.M., Atkins, G.G. and Swain, S.L. 1992. Long-term CD4+ memory T cells from the spleen lack MEL-14, the lymph node homing receptor. *J. Immunol.* 148:324-331.
- 21. Swain, S.L. and **Bradley, L.M.** 1992. Helper T cell memory: More questions than answers. *Sem. Immunol.* 4:59-68.
- 22. **Bradley, L.M.** and Swain, S.L. 1992. Development of antigen-specific peripheral helper T cell subsets in vivo. In: New Advances on Cytokines, Vol. 92,(S. Romagnani, T.R. Mosmann, A.K. Abbas, eds.), Serono Symposia Publications, pp. 125-130.
- 23. Bradley, L.M., Duncan, D.D., Yoshimoto, K., and Swain, S.L. 1993. Memory effectors: A potent, IL-4 secreting helper T cell population that develops in vivo after restimulation with antigen. *J. Immunol.* 150:3119-3130.
- 24. Bradley, L.M., Croft, M. and Swain, S.L. 1993. T cell Memory: New perspectives. *ImmunologyToday* 14:197-199.
- 25. Yoshimoto, K., Swain, S.L. and **Bradley, L.M.** 1993. IL-4 secretion by antigen-specific primary CD4+ effectors in response to in vivo exposure to IL-4 *J. Immunol.* 150:1542.
- 26. Croft, M., **Bradley, L.M.** and Swain, S.L. 1994. Naive versus memory CD4 T cell response to antigen: Memory cells are less dependent on accessory cell costimulation and can respond to many APC types including resting B cells. *J. Immunol.* 152:2675-2685.
- 27. Bradley, L.M., Watson, S.R. and Swain, S.L. 1994. Entry of naive CD4 T cells into peripheral lymph nodes requires L-selectin. *J. Exp. Med.* 180:2401-2406.

- 28. Hou, S., Hyland, L., **Bradley, L.M.**, Watson, S.R. and Doherty, P.C. 1995. Subverting lymph node trafficking by treatment with the Mel-14 monoclonal antibody to L-selectin does not prevent an effective host response to Sendai virus. *J. Immunol.* 155:252-258.
- 29. **Bradley, L.M.**, Yoshimoto, K. and Swain, S.L. 1995. The cytokines IL-4, IFN-γ, and IL-12 regulate the development of subsets of memory effector helper T cells in vitro. *J. Immunol*. 155:1713-1724.
- 30. Yoshimoto, K., Swain, S.L., and **Bradley, L.M.** 1996. Enhanced development of Th2-like primary CD4 effectors in response to sustained exposure to limited rIL-4 in vivo. *J. Immunol*. 156: 3267-3274.
- 31. **Bradley, L.M.**, Dalton, D.K. and Croft. M. 1996. A direct role for IFN-γ in regulation of Th1 development. *J. Immunol.* 157:1350-1358.
- 32. Swain, S.L., Croft, M., Dubey, C., Haynes, L. Rogers, P., Zhang, X., and Bradley, L.M. 1996. From naive to memory T cells. *Immunol. Rev.* 150:143-167.
- 33. **Bradley, L.M.** and Watson, S.R. 1996. Lymphocyte migration into tissue: The paradigm derived from CD4 subsets. *Curr. Opin. Immunol.* 8:312-320.
- 34. **Bradley, L.M.**, Malo, M.E, Tonkonogy, S. and Watson, S.R. 1997. L-selectin is not essential for trafficking or development of primary responses in Peyer's patches. *Eur. J. Immunol.* 27: 1140-1146.
- 36, Zhang, X., Brunner, T., Carter, L., Dutton, R.W., Rogers, P., Bradley, L.M., Sato, T., Reed, J., Green, D. and Swain, S.L. 1997. Unequal death in T helper cell (Th)1 and Th2 effectors: Th1, but not Th2, undergo rapid Fas/FasL-mediated apoptosis. *J. Exp. Med.* 185:1837-1849.
- 37. Balasa, B., Deng, C., Lee, J., **Bradley, L.M.**, Dalton, D. K., Cristadoss, P., and Sarvetnick, N. 1997. Interferon gamma (IFN-γ) is necessary for the genesis of acetylcholine receptor-induced clinical experimental autoimmune myasthenia gravis in mice. *J. Exp. Med.* 186:385-391.
- 38. Mueller, R., Bradley, L. M., Krahl, T., and Sarvetnick, N. 1997. Mechanism underlying counter-regulation of autoimmune diabetes by IL-4. *Immunity* 7:411-418.
- 39. Dutton, R.L., **Bradley, L.M.** and Swain, S.L. 1998. T cell memory. *Adv. Immunol*. 16: 201-223.
- 40. Watson, S.R., Malo, M.E., Fong, S., Tonkonogy, S.L., and **Bradley, L.M.** 1998. Blockade of both L-selectin and α4 integrins abrogates naive CD4 cell trafficking and responses in gut associated lymphoid organs. *Int. Immunol.* 10:961-968.
- 41. Horwitz, M.S., **Bradley, L.M.**, Harbertson, J., Krahl, T., Lee, J., and Sarvetnick, N. 1998. Coxsackie virus-induced diabetes: Initiation by bystander damage and not molecular mimicry, *Nature Medicine* 4:781-785.
- 42. Watson, S. R. and Bradley, L. M. 1998. The recirculation of naive and memory lymphocytes. *Cell Adhes. Comm.* 6:105-110.
- 43. **Bradley**, **L.M.**, Asensio, V.C., Schioetz, L.-K, Harberston, J., Krahl, T., Patstone, G., Woolf, N., Campbell, I., and Sarvetnick, N. 1999. Islet-specific Th1 cells but not Th2 cells secrete multiple chemokines and promote rapid induction of autoimmune diabetes, *J. Immunol*.162:2511-2520.

- 44. Dutton, R.W., Swain, S.L., and **Bradley, L.M**. 1999. The generation and maintenance of memory T and B cells, *Immunol. Today* 20:291-293.
- 45. Bradley, L.M., Harbertson, J. and Watson, S.R. 1999. Memory CD4 cells do not migrate into peripheral lymph nodes in the absence of antigen, Eur. J. Immunol. 29:3273-3284.
- 46. **Bradley, L.M.**, Harbertson, J., Freschi, J., Kondrack, R.M., and Linton, P.-J. 2000. Regulation of the development and function of memory CD4 subsets. *Immunologic Res.* 21:149-158.
- 47. Linton, P.-J., Harbertson, J., and **Bradley, L.M.** 2000. A critical role for B cells in the development of memory CD4 cells, *J. Immunol*.165:5558-5565.
- 48. Harbertson, J., Biederman, E., Bennett, K.E., Kondrack, R.M., and **Bradley, L.M.** 2002. Withdrawal of stimulation may initiate the transition from effector to memory CD4 cells. *J. Immunol.* 168:1095-1102.
- 49. **Bradley, L.M.**, Harbertson, J., Biederman, E., Zhang, Y., Bradley, S. M., and Linton, P.-J. 2002. Availability of APC can determine the extent of CD4 effector expansion and priming for secretion of Th2 cytokines. *Eur. J. Immunol*.32:2338-2346.
- 50. **Bradley, L. M.** 2003. Migration and T lymphocyte effector function. *Curr. Opin. Immunol.* 15:343-348.
- 51. Linton, P.-J., Bautista, B., Biederman, E., Bradley, E.S., Harbertson, J., Kondrack, R.M., Padrick, R.C., and **Bradley, L.M.** 2003. Costimulation via OX40L expressed by B cells is sufficient to determine the extent of primary CD4 cell expansion and Th2 cytokine secretion in vivo. *J. Exp. Med.* 197:875-883.
- 52. Bradley, L.M. 2003. CD4+ cell memory: the enigma of Th1 cells. Trends Mol. Med. 9:186-188.
- 53. Kondrack R.M., Harbertson J, Tan J.T., McBreen M.E., Surh C.D., and **Bradley L.M**. 2003. Interleukin 7 regulates the survival and generation of memory CD4 cells. *J. Exp. Med*. 198:1797-1806.
- 54. **Bradley, L.M.**, Haynes, L., and Swain, S.L. 2005. Interleukin-7: Maintaining T cell memory and achieving homeostasis. *Trends Immunol*. 26:172-176.
- 55. Chapman, T.J., Castrucci, M.R., Padrick, R.C., **Bradley, L.M.**, and Topham, D. J. 2005. Antigen-specific and non-specific CD4+ T cell recruitment and proliferation during influenza infection *J. Virol.* 340:296-306.
- 56. Weber. S.E., Harbertson, J., Godebu, E., Mros, G,A., Padrick, R.C., Carson, B.D., Ziegler, S.F., and **Bradley, L.M.** 2006. Adaptive islet-specific regulatory CD4 T cells control autoimmune diabetes and mediate the disappearance of pathogenic Th1 cells in vivo. *J. Immunol.* 176:4730-4739.
- 57. Zhang, Y., Diago, O., Li, S., Bradley, L.M., Sherman, L.A., Schettini, J., Smith, B., and Linton, P.-J. 2006. Defective dendritic cell migration with aging, submitted.
- 58. Bronstetter, T., Falls, K., Padrick, R.C., Asensio, V., and Bradley, L.M. 2006. CD44 controls effector CD4 cell survival and the generation of memory, submitted.